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# 18. New South African Opiliones. By R. F. LAWRENCE, B.A., Ph.D., Assistant in Charge of Arachnida.

### (With 19 Text-figures.)

THE following paper consists of descriptions of new Harvest-spiders which have accumulated since the publication of The Harvestspiders of South Africa in 1931. I am indebted to Dr. S. Manton of Cambridge for two new species collected at Hogsback, Amatola Mts., in May 1933, one of which, *Larifuga mantoni*, is named in her honour. Mr. J. Hewitt, Albany Museum, Grahamstown, has sent me two new forms, which are described here.

Three new genera have been established, Umtaliella, Paramontia, and Roewerania, the last of which is named in honour of my friend Professor C. Fr. Roewer, Director of the Natural History Museum, Bremen. The remaining species are included in already known genera as follows:—

Ceratomontia			8 s	pecies.
Austromontia			<b>2</b>	,,
Biacumontia			1	,,
Adaeulum			1	,,
Larifugella			1	,,
Larifuga .			1	,,
Cadella .			1	,,
Rhampsinitus	-•		1	,,

All types, except where otherwise stated, are deposited in the South African Museum, Cape Town.

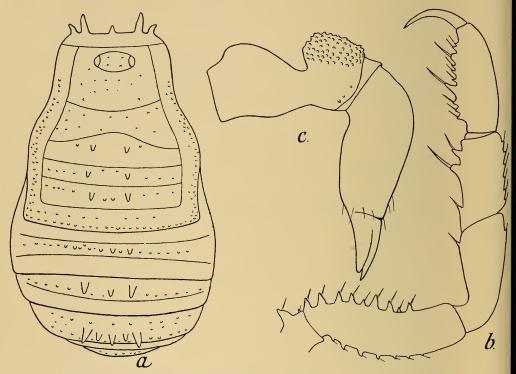
# SUBORDER LANIATORES.

#### FAM. ASSAMIIDAE Sorensen.

#### SUBFAM. Assamiinae Roewer.

#### UMTALIELLA n. genus.

Ocular tubercle low, broader than long, separated from the anterior margin of the carapace by a groove; dorsal scute without enlarged VOL. XXX, PART 4. 37 granules, area I without a longitudinal groove, free tergites II and III with enlarged conical granules; stigmata clearly visible; pedipalp femur armed ventrally with a row of teeth shorter than the width of the femur seen from the side; chelicera with a deep saddle-shaped depression in the middle of segment I; legs unarmed; claws of legs III and IV simple, not toothed; terminal section of tarsus II, 3-jointed; tarsal segments I, 6; II, 9-10; III, 7; IV, 7.



TEXT-FIG. 1.—Umtaliella rhodesiensis. a, dorsal surface; b, pedipalp; c, chelicera.

Umtaliella rhodesiensis n. sp.

# (Text-fig. 1.)

Type, 1 specimen (sex ?), Umtali, South Rhodesia.

Colour.—Uniform yellow (the specimen has been preserved for some years in alcohol).

Ocular tubercle seen from above (fig. 1, a), oval, its width greater than its length; seen from the side, low, rounded, and inconspicuous, surmounted by a few granules; dorsal scute (fig. 1, a), shiny and for

the most part smooth, with a few small scattered granules, free tergites II and III with 3 conical enlarged granules in the centre, the middle one smaller than the others, remaining granules of tergites minute; inferior surfaces of coxae with a uniform, fairly dense covering of minute granules, those at the distal extremities of the segments a little larger, especially in I and II; genital operculum with fewer and more scattered granules than the coxae; stigma-bearing sternite with several rows of minute granules, remaining sternites with 1 anterior row of minute granules.

Pedipalp as in fig. 1, b, seen from the inner side; femur ventrally with a row of 7-9 small triangular teeth, 2 denticles at its inner apex; patella ventrally with 1 outer, 2 inner small teeth; tibia ventrally on its inner side with 1 small, 1 large, 2 small, 1 large, 1 small teeth; outer side as in fig. 1, b; tarsus with 2 small, 1 large, 1 small, 1 large, 1 small teeth on its inner side; outer side as in fig. 1, b.

Chelicera seen from the inner side as in fig. 1, c; segment I seen from above granular in its distal half, smooth in its proximal half; segment II smooth, the movable and immovable claws long and slender.

Legs with rows of minute spines, a pair of longer ones at the inferior apex of the calcaneus of each leg; tarsal segments I, 6; II, 9-10; III, 7; IV, 7.

Dimensions.-Length of body \* 6.2, breadth 3.9, pedipalp 3.5 mm.

### FAM. TRIAENONYCHIDAE Sorensen.

#### SUBFAM. Triaenonychinae Pocock.

Genus CERATOMONTIA Roewer.

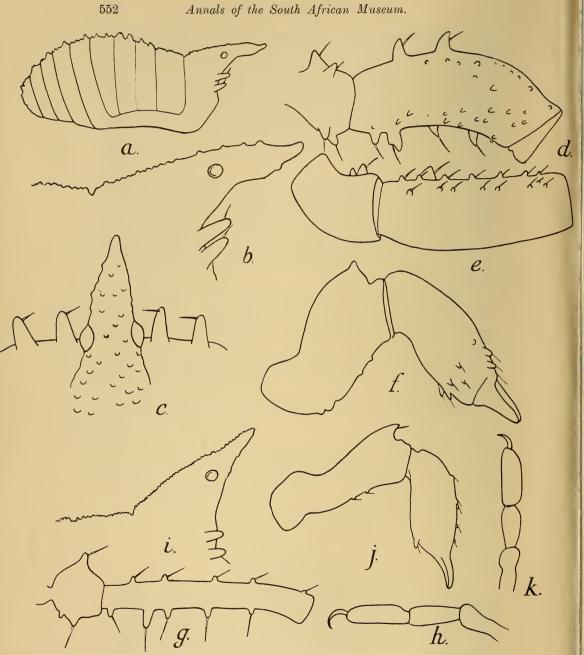
## Ceratomontia reticulata n. sp.

## (Text-fig. 2.)

Types, 6 33, 3 ♀♀, Hogsback, Amatola Mts.

3. Colour.—Carapace yellow-brown with black reticulate markings, remainder of dorsum uniformly dark brown except for a median black longitudinal stripe on dorsal scute; inferior surfaces of coxae with black reticulate markings, sternites blackish-brown; pedipalps

\* "Length of body" is measured from the anterior margin of the carapace to the posterior extremity of the body.



TEXT-FIG. 2.—Ceratomontia reticulata. ♂: a, profile of body; b, ocular tubercle from the side; c, ocular tubercle from above; d, pedipalp femur from inner side; e, patella and tarsus, inner side in profile; f, chelicera; g, femur I; h, tarsus I. ♀: i, ocular tubercle from the side; j, chelicera; k, tarsus I.

yellow with blackish reticulate bands; chelicerae covered with black reticulate markings; legs blackish-brown.

Dorsal Surface.—Anterior margin of carapace with 2 long conical granules on each side of the ocular tubercle (fig. 2, b, c); ocular tubercle as in fig. 2, a, b, seen from the side, fig. 2, c, seen from above; area behind the ocular tubercle with fairly numerous granules, a longitudinal strip in the middle smooth; areas I–IV with an anterior row of large and a posterior row of small granules, the anterior rows of areas I and II abbreviated, consisting of 2–4 granules, the central pair of granules in areas III and IV slightly larger than the others; area V and free tergites I and II with a single row of larger granules, III with a similar row duplicated at the sides.

Ventral Surface.—Coxae smooth and shiny, IV shagreened in its distal fifth, coxa I with 2 low tubercles, the distal one bifid and larger than the other; genital operculum longer than broad; sternites with 2 rows of small granules.

Pedipalp.—Femur and trochanter as in fig. 2, d; femur dorsally with only 2 teeth, armed ventrally as in fig. 2, d, without a strip of fine granulation in the middle, instead with a number of scattered, shiny, moderate-sized granules; remaining segments of palp weakly armed, patella unarmed on its outer side, with 2 small teeth on its inner side below (fig. 2, e); tibia armed on its inner side as in fig. 2, e, on its outer side with a row of small weak teeth; tarsus on its inner side with 4 moderate teeth, on its outer side with a row of about 10 teeth, two of which are large and triangular, the rest equal-sized and small.

Chelicera.—Segment I without teeth above but with 1-2 blunt shiny granules at its dorsal distal edge (fig. 2, f).

Legs.—Femur I below with a row of conical granules as in fig. 2, g; tarsal segments I, 2; II, 3; III, 3; IV, 3; tarsus I with its proximal segment very little shorter than the distal one (fig. 2, h).

Dimensions.-Length of body 3.8, breadth 3, pedipalp 4.9 mm.

 $\mathfrak{P}$ . Differing from the  $\mathfrak{F}$  in the shape of the ocular tubercle (fig. 2, *i*); areas I-IV with irregularly disposed granules, these not arranged in two rows.

Pedipalp.—Femur with 3 teeth above, tibia with a large basal tooth below on its inner side, tarsus below with larger teeth on each side than in the  $\sigma$ . Chelicera as in fig. 2, j.

Legs.—Femur I with some conical granules below; tarsus I with the proximal segment  $\frac{2}{3}$  the length of the distal segment (fig. 2, k).

Dimensions.—Length of body 2.8, pedipalp 3.2 mm.

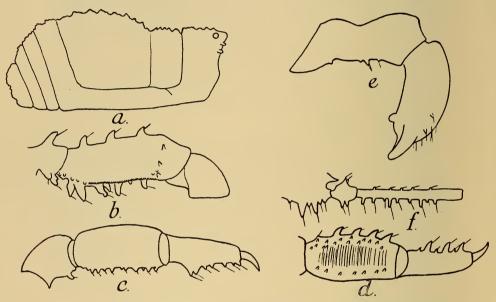
#### Ceratomontia sanguinea n. sp.

(Text-fig. 3.)

Types, 12 33 and 99, Montagu Pass, George.

 $\vec{\sigma}$ . Colour a distinctive light red, except the legs, which are dark reddish-brown.

Dorsal Surface.—Body large, very broad and stout. The general background of the dorsum smooth and shiny, not shagreened, the



**TEXT-FIG. 3.**—*Ceratomontia sanguinea.*  $\mathcal{J}: a$ , profile of body; *b*, femur and patella of pedipalp; *c*, patella, tibia, tarsus of pedipalp, outer side in profile; *d*, tibia and tarsus of pedipalp, inner side in profile; *e*, chelicera; *f*, femur I.

granules of the dorsal surface small and shiny; anterior margin of carapace with 2-3 small indistinct granules on each side of the ocular tubercle; ocular tubercle as in fig. 3, *a*. Seen from the side, its dorsal surface and the area posterior to it with a few scattered granules; areas I-V well defined, at least in the middle, by distinct grooves; areas I-IV with an anterior row of large and a posterior row of small granules; area V and all free tergites with a single row of granules.

Ventral Surface.—Coxae smooth and shiny, IV with its distal fifth shagreened, I with 2 large conical tubercles along its anterior distal margin, the proximal one the larger; stigmata visible on the

stigma-bearing sternite; sternites with 2 rows of round granules, those of the posterior row very small and hardly distinguishable.

Pedipalp.—Femur laterally compressed, especially proximally, the ventral surface blade-like; trochanter and femur as in fig. 3, b, seen from the inner side; trochanter above with 2 teeth, the larger one exceeding the 3 dorsal teeth of the femur, below with a compound tooth; femur with 2 teeth distally on its inner surface, which is otherwise very smooth and shiny; patella below with a small tooth on both inner and outer sides; tibia toothed on the outer side as in fig. 3, c, on the inner side as in fig. 3, d, the ventral surface of the segment between these rows slightly concave and with faint transverse corrugations; tarsus toothed on the outer side as in fig. 3, c, on the inner side as in fig. 3, d.

Chelicera as in fig. 3, e, seen from the inner side, segment II on its posterior surface with a distinct tubercle at the base of the claws.

Legs.—Femur I armed below as in fig. 3, f; tarsal segments I, 2; II, 3; III, 3; IV, 3.

Dimensions.—Length of body 4.2, greatest breadth 3.4, pedipalp 6.5 mm. A smaller specimen, which I take to be a  $\mathcal{Q}$ , only differs from the above description in the much shorter pedipalps. It has a body length of 3.8, pedipalp of 3.6 mm.

### Ceratomontia namagua n. sp.

#### (Text-fig. 4.)

Type, 1 specimen (Q?), Leliefontein, Namaqualand.

Colour.-Uniform light yellow.

Dorsal Surface.—Anterior margin of carapace with 2 moderate conical granules on each side of the ocular tubercle; ocular tubercle as in fig. 4, *a*, seen from the side, fig. 4, *b*, seen from above, with a few granules on its dorsal surface; area posterior to the ocular tubercle with a strip of 5–6 granules on each side divided by a narrow smooth strip; areas I–IV with 2 rows of granules, the anterior one composed of much larger granules than the posterior one; area V and free tergites I and II with a single row of larger granules, free tergite III with 2 rows of granules.

Ventral Surface.—Surfaces of coxae smooth, IV shagreened in its distal half, I with some granules and 2 large tubercles along its anterior distal margin, the distal one bifid; genital operculum smooth, broader than long; sternites with an anterior row of well-spaced granules, a row of smaller granules along its posterior margin, these very close-set, forming a distinct rim along the margin of the segment; between these two rows a very indistinct row of widely spaced granules intermediate in size to those of the anterior and posterior rows; the granules of the anterior and middle rows tipped with setae, the posterior row without setae.

Pedipalp as in fig. 4, c, seen from the inner side. Femur with 4 dorsal teeth, the proximal one situated a little more laterally than the others; inner surface of femur finely shagreened, its distal half with 2 teeth, the one large the other much smaller; patella below with a small tooth on each side distally; tibia and tarsus as in fig. 4, c.

*Chelicera* as in fig. 4, *d*, seen from the inner side; segment I with a small tooth at its inner distal edge; segment II with a few low round granules along the inner side of its anterior surface.

Legs.—Femur I ventrally armed as in fig. 4, e, patella with 1, tibia with 3 seta-tipped granules ventrally; tarsal segments I, 2; II, 3; III, 3; IV, 3.

Dimensions.-Length of body 2.2, pedipalp 2.4 mm.

### Ceratomontia pusilla n. sp.

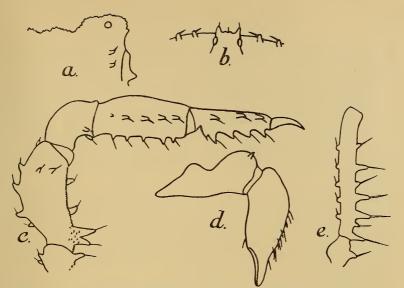
(Text-fig. 5.)

Types, 5 33, 6 99, Grahamstown.

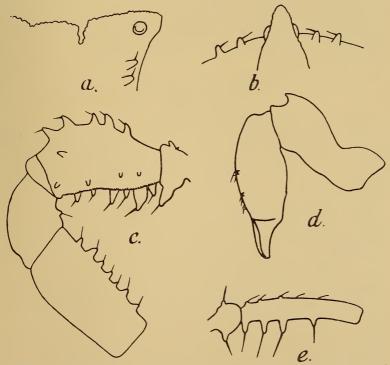
3. Colour.—Body yellow, the posterior segments sometimes infuscated, dorsal scute with or without a median blackish stripe; pedipalps and chelicerae yellow; legs a little darker than the body.

Dorsal Surface.—Anterior margin of carapace with 2 conical granules on each side of the ocular tubercle, the outer one larger than the inner one; ocular tubercle as in fig. 5, *a*, seen from the side, fig. 5, *b*, seen from above, its dorsal surface with some small granules; area posterior to the ocular tubercle with 2 irregular rows of granules; areas I-IV with a row of larger granules near the anterior margin, a row of much smaller granules bordering the posterior margin, the granules of the anterior row with, those of the posterior row without, long white setae at their tips; area V and free tergites I and II with a single well-spaced row of round, seta-tipped granules, free tergite III with more than one such row of granules.

Ventral Surface.—Surfaces of coxae smooth and shiny except the distal  $\frac{2}{3}$  of IV which is shagreened, covered with scattered long white setae, coxa I with 2 stout tubercles on its anterior distal margin, some smaller granules behind these; anterior halves of sternites with



TEXT-FIG. 4.—*Ceratomontia namaqua.* a, ocular tubercle from the side; b, ocular tubercle from above; c, pedipalp; d, chelicera; e, femur I.



TEXT-FIG. 5.—Ceratomontia pusilla. 3: a, ocular tubercle from the side; b, ocular tubercle from above; c, pedipalp femur (tarsus omitted); d, chelicera; e, femur I.

2 rows of granules tipped with setae, those of the posterior row minute.

Pedipalp.—Femur seen from inner side as in fig. 5, c, with a strong tooth on its inner distal surface, the median strip of fine granulation on the ventral surface composed of comparatively few large granules; patella below with 1 tooth at its inner apex; tibia below with 4 inner, 7 outer smaller teeth (fig. 5, c); tarsus with 3 triangular teeth on each side, the outer basal one more or less compound and larger than the others.

Chelicera as in fig. 5, d, seen from the inner side; segment I armed at its inner distal edge with a minute tooth, segment II with 3-4 granules along its inner anterior surface, a granule on its posterior distal surface, near the base of the immovable finger.

Legs.—Femur I armed below as in fig. 5, e, legs otherwise unarmed; tarsal segments I, 2; II, 3; III, 3; IV, 3.

Dimensions.-Length of body 1.5, pedipalp 1.7 mm.

 $\mathfrak{Q}$ . Differing from the  $\mathfrak{Z}$  in the smaller pedipalp on the femur of which there are 4 instead of 5 dorsal teeth; teeth on tibia and tarsus proportionately larger than in the  $\mathfrak{Z}$ ; chelicerae smaller, segment II without a toothlike granule at the base of the claws.

Dimensions.—Length of body 1.4, pedipalp 1.3 mm.

### Ceratomontia nasuta n. sp.

#### (Text-fig. 6.)

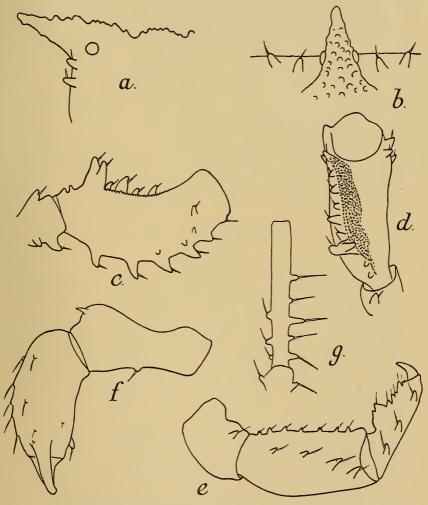
Types, 2 33, French Hoek, Cape Province.

Colour.—Carapace and area behind the ocular tubercle yellow with blackish markings, remainder of dorsum blackish-brown; inferior surfaces of coxae yellow, remainder of ventral surface brown; appendages blackish-brown.

Dorsal Surface.—Anterior margin of carapace with 2 conical granules on each side of the ocular tubercle; ocular tubercle as in fig. 6, a, seen from the side, fig. 6, b, seen from above, covered dorsally with coarse granules; area posterior to the ocular tubercle with coarse granules, a narrow longitudinal strip in the middle free of granules; areas I–IV with 2 transverse rows of granules, those of the posterior row considerably smaller than the granules of the anterior row; area V and free tergites I and II with 2 rows of larger granules, free tergite III with 2 irregular rows of larger granules.

Ventral Surface.—Coxae smooth, I with a row of granules and 2

large tubercles on its anterior distal margin; genital operculum smooth, about as long as broad; sternites with 2 rows of granules



**TEXT-FIG.** 6.—*Ceratomontia nasuta.*  $\vec{\sigma}: a$ , ocular tubercle from the side; b, ocular tubercle from above; c, pedipalp femur from inner side; d, pedipalp femur from below; e, patella, tibia, tarsus of pedipalp; f, chelicera; g, femur I.

in their anterior half, the anterior row consisting of granules larger than the posterior row, but much smaller than the largest granules of the dorsal surface. Pedipalp.—Femur as in fig. 6, c, seen from the inner side, its inner surface with 4 teeth in the distal half; seen from below (fig. 6, d), base of femur with a large bifid tooth on the outer side followed distally by 6 stout simple teeth; mesially to this row a strip of fine granulation which is not flanked on the inner side by a row of rounded granules; patella below with a tooth at its inner apex; tibia below (fig. 6, e), with 7-8 small triangular teeth on its outer side and 2-3 larger teeth on its inner side; tarsus below on its outer side as in fig. 6, e, seen in profile, its inner side with 3 sharp teeth.

Chelicera, as in fig. 6, f, seen from the inner side. Segment I at its inner distal edge with a stout tooth, segment II with a row of round granules along its inner anterior surface.

Legs.—Femur I armed ventrally as in fig. 6, g; tarsal segments I, 2; II, 3; III, 3; IV, 3; the distal segment of tarsus I oval in shape, broader than, and twice as long as, the proximal segment.

Dimensions.—Length of body 2.8, pedipalp 3.7 mm.

### Ceratomontia annae n. sp.

# (Text-fig. 7.)

Type, 1 3, Jonkershoek, Stellenbosch.

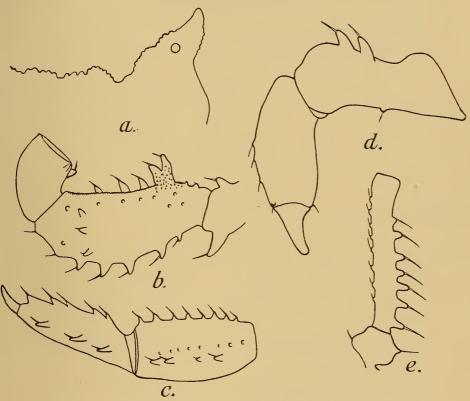
Colour.—Body yellow, variegated with olive-green; appendages yellow with fine olive-green reticulate markings.

Dorsal Surface.—Anterior margin of carapace with 3 inconspicuous granules on each side of the ocular tubercle, these very little larger than the largest granules of the dorsal surface; ocular tubercle as in fig. 7, a, seen from the side, its dorsal and lateral surfaces fairly thickly covered with round granules; sides of the carapace smooth; area posterior to the ocular tubercle with 2 longitudinal granular strips, the area between them smooth; areas I–IV with an anterior row of large round granules, a row of smaller granules bordering the posterior margin of the segment; the anterior row not reaching the sides of the segment, composed of conspicuous granules tipped with setae, the posterior row without setae; area IV with the anterior row of granules duplicated laterally, the posterior row composed of very small inconspicuous granules; area V and free tergites I and II with a single row of larger granules, free tergite III with more than one row of these granules.

Ventral Surface.—Coxae smooth, IV shagreened in its distal fourth, coxa I with 2 very low inconspicuous tubercles on its anterior distal margin, the distal one incompletely bifid; sternites with 2

rows of very small inconspicuous granules, much smaller than those of the dorsal surface.

Pedipalp.—Trochanter and femur as in fig. 7, b, seen from the inner side; trochanter above with 1 large tooth, larger than the dorsal teeth of the femur; femur below on the outer side with a large basal



**TEXT-FIG.** 7.—*Ceratomontia annae.* S: a, ocular tubercle; b, femur and patella of pedipalp; c, tibia and tarsus of pedipalp; d, chelicera; e, femur I.

bifid tooth followed by 3 small simple teeth; patella below with a small distal tooth on each side; tibia armed below as in fig. 7, c; tarsus with outer side seen in profile as in fig. 7, c, inner side with 3 large triangular teeth.

Chelicera as in fig. 7, d, seen from the outer side; segment I above with 2 large conspicuous teeth, the anterior one situated a little more mesially than the posterior one; segment II with some round granules along the inner side of its anterior surface. Legs.—Femur I armed ventrally as in fig. 7, e, remaining legs unarmed.

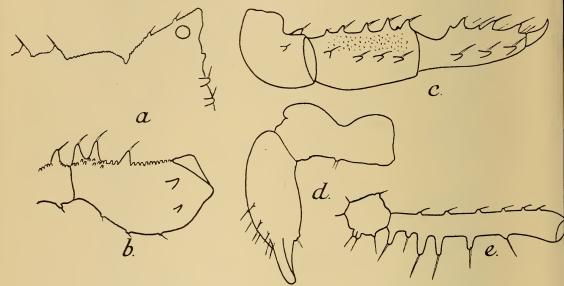
Dimensions.—Length of body 2.7, pedipalp 3.7 mm.

Ceratomontia ruricola n. sp.

(Text-fig. 8.)

Type,  $1 \, \varphi$ , Jonkershoek, Stellenbosch.

Colour.-Carapace anterior to areas I-IV yellow, with blackish



TEXT-FIG. 8.—*Ceratomontia ruricola.*  $\widehat{\varphi}$ : *a*, ocular tubercle; *b*, pedipalp femur; *c*, patella, tibia, tarsus of pedipalp; *d*, chelicera; *e*, femur I.

reticulate markings, remainder of dorsum brown; legs brown; pedipalps and chelicerae yellow.

Dorsal Surface.—Dorsum with a background shagreen of minute granules, these rather larger and more clearly defined than usual. Anterior margin of carapace with 2 enlarged granules; ocular tubercle as in fig. 8, *a*, a few scattered granules dorsally and at the sides, a granule similar to those of the anterior margin on each side of the ocular tubercle at its base; area posterior to ocular tubercle without granules; areas I-IV with 1 abbreviated row of conspicuous granules, I with 2, II with 4, III with 6, IV with 8 granules; area V and free tergites I and II with a complete or almost complete transverse row of granules, free tergite III with 2 rows of granules.

Ventral Surface.—Surfaces of coxae smooth, IV with its distal  $\frac{1}{2}-\frac{2}{3}$  shagreened, I with 2 tubercles on its anterior distal margin, the distal one bifid; genital operculum broader than long, its surface weakly granular; anterior halves of sternites with 2 transverse rows of granules, the anterior row composed of larger granules.

Pedipalp as in fig. 8, b, seen from the inner side; dorsal surface of femur differing from most other *Ceratomontia* species in being without teeth, these reduced to minute round granules; the median strip of fine granulation on the ventral surface of femur rather coarse and consisting of quite large granules; patella, tibia, and tarsus below as in fig. 8, c, seen from the inner side.

Chelicera as in fig. 8, d; segment I unarmed, a small round granule at its inner distal edge.

Legs.—Femur I armed ventrally as in fig. 8, e, remaining legs unarmed; tarsal segments I, 2; II, 3; III, 3; IV, 3.

Dimensions.-Length of body 1.9, pedipalp 1.9 mm.

Ceratomontia thorni n. sp.

(Text-fig. 9.)

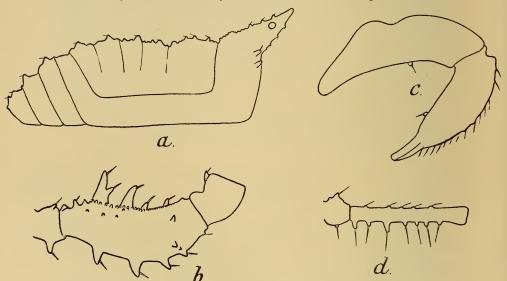
1 specimen (3?), Meirings Poort, Oudtshoorn.

Colour.—Carapace yellow brown variegated with black, remainder of dorsal scute brown with a median black stripe; pedipalps and chelicerae yellow, variegated with black; legs brown.

Dorsal Surface.—Anterior margin of carapace with 2 conical granules on each side of the ocular tubercle, the lateral one the larger. The background of the dorsal surface shagreened with fine granulation, the transverse rows of granules consisting of large, coarse, and sometimes conical granules. Anterior margin of carapace with 2 conical granules on each side of the ocular tubercle, the lateral one the larger; ocular tubercle as in fig. 9, a, seen from the side, some large round granules on its dorsal surface; area posterior to the ocular tubercle with 2 longitudinal rows of granules, a strip between them smooth; areas I–IV with 2 rows of granules, the anterior row consisting of large conical granules with long setae at their tips, the posterior row of much smaller granules without setae; area V and free tergites I and II with a single row of large conical granules, III with 2 indistinct rows of granules.

Ventral Surface.—Surfaces of coxae smooth and shiny, IV with its distal two-fifths shagreened, I with 2 tubercles on its anterior distal margin, the distal one bifid; genital operculum as broad as long; sternites with 2 rows of granules much smaller than those of the dorsal surface.

*Pedipalp.*—Trochanter, femur, and patella as in fig. 9, b, seen from the inner side; femur shagreened on its inner surface; patella below with a small tooth at its outer apex; tibia below with 5 small teeth on its outer side, its inner side with a row of 8–9 small teeth varying considerably in size, laterally to this row 2 much larger teeth near



TEXT-FIG. 9.—Ceratomontia thorni. a, profile of body; b, femur and patella of pedipalp; c, chelicera; d, femur I.

the distal apex; tarsus on its outer side with a large basal bifid tooth followed by a number of smaller teeth, inner side with 3 sharp teeth.

Chelicera as in fig. 9, c, seen from the inner side, segment I without large or small teeth.

Legs.—Femur I as in fig. 9, d; tarsal segments I, 2; II, 3; III, 3; IV, 3; tarsus I with the proximal segment one-half the length of the distal segment.

Dimensions.—Length of body 2, pedipalp 2.7 mm.

Named in honour of Mr. C. W. Thorne of the Botanical Staff of the South African Museum.

# Key to species of Ceratomontia.

1. Femur of pedipalp with a longitudinal row of 10-11 teeth above . *werneri*. Femur of pedipalp with a longitudinal row of at most 5 teeth above . 2.

2.	Areas of dorsal scute with 1 transverse row of granules	. 3.
	Areas of dorsal scute with 2 transverse rows of granules	. 4.
3.	Femur of pedipalp with 4 teeth above	tabulæ.
	Femur of pedipalp without teeth above	ruricola.
4.	Segment I of chelicera without large teeth above, its distal upper	edge some-
	times with a blunt tooth	. 5.
	Segment I of chelicera with 1 or 2 large teeth above	. 11.
5	Ventral surface of pedipalp femur without a longitudinal strip of	
υ.		-
		. 6.
	Ventral surface of pedipalp femur with a longitudinal strip of	0
	lation	. 7.
6.	Femur of pedipalp above with 4 small teeth	capensis.
	Femur of pedipalp above with 2 teeth in basal half	reticulata.
7.	Length of body more than 4 mm., colour red	sanguinea.
	Length of body $1.5-3$ mm., colour not red	. 8.
8.	Anterior margin of carapace with 4 granules on each side of	the ocular
	tubercle	irregularis.
	Anterior margin of carapace with 2 granules on each side of	the ocular
		. 9.
9.	Ventral surface of pedipalp femur without a bifid tooth at its base	pusilla.
	Ventral surface of pedipalp femur with a bifid tooth at its base .	
10	Ocular tubercle apically truncate and short	
10.	Ocular tubercle apically slender and long	
11	Segment I of chelicera with 2 large subequal teeth above .	. 12.
11.		. 12.
10		
12.	Femur of pedipalp with the dorsal teeth almost equal-sized, ocu	
	pointed	annae.
	Femur of pedipalp with the dorsal teeth varying in length, ocu	
	short and truncate	minor.
13.	Ocular tubercle drawn out into a spine 5-6 times the diame	
	eye	14.
	Ocular tubercle not drawn out into a spine, terminal process short	
		16.
14.	Anterior margin of carapace with 2 conical granules on each side o	f the ocular
	tubercle	nasuta.
	Anterior margin of carapace with 3 conical granules on each side o	f the ocular
	tubercle	. 15.
15.	Segment II of chelicera with a thickened tubercle above the immo	vable claw
		cheliplus.
	Segment II of chelicera without a thickened tubercle above the	immovable
	-	fluvialis.
16.	Anterior margin of carapace with 3 conical granules on each side o	f the ocular
1.5.	tubercle	hewitti.
	Anterior margin of carapace with 2 conical granules on each side o	f the ocular
	tubercle	. 17.
17	Segment I of chelicera above with an upright tooth in the middle	
	Segment I of chelicera above with an upright tooth in the initial s	
	Solution and the answer with a norted tooth how the distant	setosa.
		ociosu.

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Genus LAWRENCELLA E. Strand.

- 1932. Lawrencella, E. Strand, Folia. Zool. et Hydrob., Latvia University, Riga, vol. iv, p. 142.
- 1931. Roeweria, Lawrence (Non Mello-Leitao, 1923), Ann. S.A. Mus., vol. xxix, p. 384 (nom. preocc.).

The name Lawrencella was proposed by Strand to take the place of the name Roeweria which had already been employed by Dr. Mello-Leitao in 1923 (Arch. Mus. Nacion., Rio de Janeiro, vol. xxiv, p. 166). The name Roeweria (Lawrence) therefore, which was erected in honour of Professor C. Fr. Roewer, must be discarded.

## Lawrencella inermis (Lawrence).

This rare species was based on a single specimen from Newlands. Since its description another (juvenile) specimen has been found at Camps Bay, Cape Peninsula.

## PARAMONTIA n. genus.

Genotype, Rostromontia lisposoma, Lawrence, Ann. S.A. Mus., vol. xxix, p. 392, 1931, fig. 26, a-f.

Whole of dorsal surface smooth, without rows of granules, the areas well defined by transverse grooves; ocular tubercle short and not drawn out into a spine; inferior surfaces of coxae I and II granular, coxa I without 2 large tubercles on its anterior distal margin; stigmata hidden; femur of pedipalp without a median strip of fine granulation on its ventral surface; femur of leg III armed with larger granules than those of femur I; calcaneus of all legs much shorter than astragalus; median prong of claws of tarsi III and IV much stouter than the lateral prongs; tarsal segments short and stout, especially those of leg III; number of tarsal segments I, 3; II, 5; III, 4; IV, 4. This genus agrees with *Rostromontia* in the number of tarsal segments, but differs from it in the complete absence of dorsal granulation, the absence of coxal tubercles, and in having the ventral armature of leg III more pronounced than that of leg I.

# Paramontia infinita n. sp.

### (Text-fig. 10.)

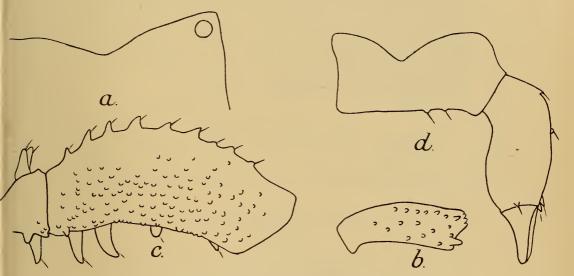
Types, 1 3, 4 99, River Zonder End.

3. Colour blackish-brown, except carapace, which is yellow brown

with blackish reticulation; pedipalps and chelicerae with blackish reticulate markings; legs uniform, blackish-brown.

Dorsal surface smooth and slightly creased, without rows of granules, the areas divided by well-defined transverse grooves; ocular tubercle as in fig. 10, a, seen from the side.

Ventral Surface.—Surfaces of coxae shagreened, coxa I, II, and to a less extent III with scattered granules in their distal halves, coxa I, fig. 10, b, with an enlarged granule at its anterior distal apex but no tubercles as in *Rostromontia*; coxae III and IV with a row



TEXT-FIG. 10.—*Paramontia infinita.* 3: a, ocular tubercle; b, coxa I; c, pedipalp femur; d, chelicera.

of granules along their posterior margins; genital operculum longer than broad, shagreened, and with a few small seta-tipped granules; sternites matt, without granules.

Pedipalp.—Trochanter and femur as in fig. 10, c, seen from the inner side. Femur below with 2 large basal equal-sized teeth on its outer side followed by 2 moderate teeth, the latter not clearly seen in fig. 10, c; ventral surface without the usual strip of fine granulation, inner surface almost entirely covered with coarse, round, smooth granules, outer surface quite smooth and shiny; patella below with 2-3 small round granules on its inner side; tibia below with an irregular row of unequal granules on its inner side, a row

of smaller granules on its outer side, a third row of granules between and parallel to these rows; tarsus armed as in *lisposoma*.

Chelicera as in fig. 10, d, seen from the outer side.

Legs.—Femur III ventrally with larger granules than those of femur I; tarsal segments of leg III stout, but a little longer than broad; tarsal segments I, 3; II, 5; III, 4; IV, 4.

Dimensions.-Length of body 4, pedipalp 4.8 mm.

 $\varphi$ . Differing from the  $\beta$  in having considerably shorter pedipalps; ventral surface of pedipalp femur with smaller teeth than those of the  $\beta$ , these equal sized; inner surface of femur differing from that of the  $\beta$  in being covered with fine matt granulation in its proximal half, the coarse round granules being only present on the distal half; tibia and tarsus with larger teeth than in the  $\beta$ ; legs armed as in  $\beta$ . Genital operculum about as long as broad, the extruded ovipositor with an apical ring of 16–18 long and stout setae.

Dimensions.-Length of body 3.6, pedipalp 3.1 mm.

### Key to species of Paramontia.

1. Ventral surface of pedipalp femur with 2 large equal-sized teeth near its base infinita.

Ventral surface of pedipalp femur with the 2 basal teeth not equal-sized \$lisposoma.\$

#### Genus Austromontia Lawrence.

## (Text-fig. 11.)

## Austromontia bidentata n. sp.

Type, 1 specimen (3?), Jonkershoek, Stellenbosch.

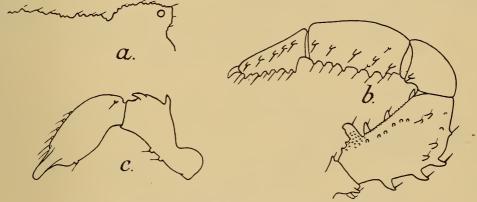
Colour.---Uniform brown.

Dorsal Surface.—Anterior margin of carapace with 2 granules on each side of the ocular tubercle, these hardly larger than the remaining granules of the dorsal scute; ocular tubercle as in fig. 11, a, seen from the side, covered dorsally with granules; area posterior to the ocular tubercle with 1–2 short longitudinal rows of granules on each side of a smooth median strip; areas I–IV with 2 rows of inconspicuous granules, those of the anterior row very little larger than the granules of the posterior row; area V and free tergites I and II with a single transverse row of granules.

Ventral Surface.—Surfaces of coxae creased but shiny, the distal third of IV shagreened, I with 2 simple tubercles at its anterior

distal margin; sternites with 2 rows of granules, those of the anterior row the larger.

Pedipalp as in fig. 11, b, seen from the inner side. Trochanter with 2 widely separated teeth above, 1 smaller tooth below; ventral surface of femur with a large basal tooth on the outer side followed by 2 distal teeth and an apical tooth not seen in fig. 11, b; patella below with 1 tooth near the inner distal apex; tibia as in fig. 11, b; mesially to the 5 teeth on the inner side some round granules, the whole of the ventral surface between the inner and outer rows of granules shagreened; tarsus as in fig. 11, b.



TEXT-FIG. 11.—Austromontia bidentata. a, ocular tubercle; b, pedipalp; c, chelicera.

Chelicera as in fig. 11, c, seen from the inner side; segment I with an anterior tooth at the inner distal edge, a second posterior tooth situated a little more laterally than the anterior one; segment II with a row of low round granules on the inner side of the anterior surface.

Legs.—Femur I with 4 granules on its ventral surface, legs otherwise unarmed.

Dimensions.—Length of body 1.9, pedipalps 2.7 mm.

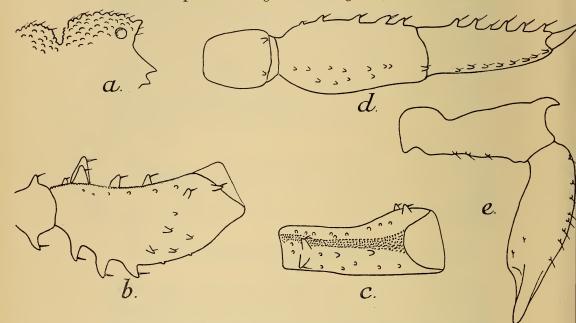
Austromontia litoralis n. sp.

(Text-fig. 12.)

Type, 1 3, Hermanus.

Colour.---Uniform yellow.

Dorsal Surface.—Anterior margin of carapace with 1-2 granules on each side of the ocular tubercle; ocular tubercle as in fig. 12, a, seen from the side, its dorsal surface fairly thickly studded with small round granules; carapace at the sides of the ocular tubercle without granules; area posterior to the ocular tubercle with several rows of granules, a short longitudinal strip in the middle without granules; areas I-IV with 2 transverse rows of granules, the anterior one rather irregular and composed of granules slightly larger than those of the posterior row, which is very regular and borders the posterior margin of the segment; area V and free



TEXT-FIG. 12.—Austromontia litoralis.  $\mathfrak{Z}$ : a, ocular tubercle; b, pedipalp femur from the side; c, pedipalp femur from below; d, patella, tibia, tarsus of pedipalp; e, chelicera.

tergites I and II with a single transverse row of granules in the middle, free tergite III with 2 rows of granules.

Ventral Surface.—Surfaces of coxae without granules, shiny and rather creased, coxa I at its anterior distal margin with 2 large conical tubercles, the apical one bifid; genital operculum longer than wide, triangular, and with a slightly thickened rim; sternites with 2 rows of widely spaced, round, seta-tipped granules in their anterior half.

Pedipalp.—Femur and trochanter as in fig. 12, b, seen from the inner side; femur with 4-5 teeth on its inner distal surface; seen

from below (fig. 12, c), its ventral surface with a row of 8 small round shiny granules on the inner side, a middle row of 3 large teeth, the basal one bifid, and an outer row of 5 granules; between the inner and middle rows of teeth the usual strip of fine granulation; patella, tibia, and tarsus as in fig. 12, d, seen from below.

Chelicera as in fig. 12, e, seen from the inner side; segment I with a single hooked tooth on the inner side of its upper distal edge; segment II with a row of small round granules along the inner side of its anterior surface.

Legs.—Femur I without enlarged conical granules on its ventral surface except for a few near its base; tarsal segments I, 3; II, 4; III, 4; IV, 4; calcaneus of leg I a little more than half, calcaneus of leg II half the length of the astragalus.

Dimensions.—Length of body 3, pedipalp 4.3 mm.

#### Key to species of Austromontia.

1.	Pedipalp femur below with a simple tooth near its base .		. 2.
	Pedipalp femur below with a large compound tooth near its base		. 3.
2.	Segment I of chelicera with 1 tooth above	•	silvatica.
	Segment I of chelicera with 2 teeth above	•	bidentata.
3.	Calcaneus of metatarsi I and II half the length of astragalus	•	litoralis.
	Calcaneus of metatarsi I and II much shorter than astragalus	•	. 4.
4.	Pedipalp femur below with a bifid tooth near the base.	•	capensis.
	Pedipalp femur below with a trifid tooth near the base	•	caledonica.

#### Genus BIACUMONTIA Lawrence.

## Biacumontia variegata n. sp.

## (Text-fig. 13.)

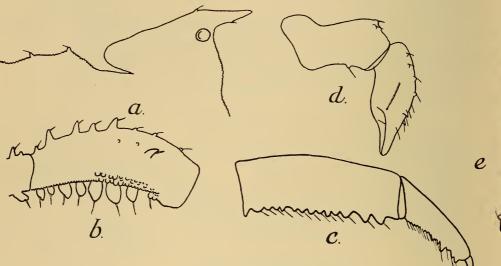
Type, 1 specimen (sex ?), Keurbooms River, near Knysna.

*Colour.*—Body yellow, anterior half of body, especially the ocular tubercle, with blackish markings, dorsal scute with a median blackish stripe, tergites with blackish markings, appendages variegated with blackish reticulate markings and bands.

Dorsal Surface.—Ocular tubercle as in fig. 13, a, seen from the side; areas I-IV each with an abbreviated row of enlarged conical granules in the middle, I with 2, II with 4, III and IV with about 6 granules; area V and free tergites I and II with a complete row of granules reaching from side to side, free tergite III with 2 rows of granules.

Ventral Surface.—Surfaces of coxae smooth and shiny, IV shagreened in its distal half, I with 2 tubercles at its anterior distal margin, the more distal one bifid; sternites with a very distinct row of close-set round granules.

Pedipalp.—Femur as in fig. 13, b, seen from the inner side, with 8 dorsal teeth, the basal one minute, the apical one granuliform; ventral surface of femur with an outer row of rather swollen globose teeth, mesially to this row the usual strip of minute granules, those opposite the fifth and sixth teeth much enlarged; patella below without teeth; tibia below toothed on its outer side as in fig. 13, c,



TEXT-FIG. 13.—Biacumontia variegata. a, ocular tubercle; b, pedipalp femur; c, tibia and tarsus of pedipalp; d, chelicera; e, femur I.

its inner side without teeth; tarsus below on its outer side as in fig. 13, c, its inner side with 3 teeth.

Chelicera as in fig. 13, d, seen from the inner side; segment I with 2 small round granules at its dorsal distal edge; segment II with the usual row of 17 minute teeth on its inner surface, 2 small sharp teeth on its inner anterior surface near the base of the claws.

Legs.—Femur I armed as in fig. 13, e, on its ventral surface, femur III with a few ventral granules similar to but smaller than those of I, remaining legs unarmed; tarsal segments I, 2; II, 4; III, 3; IV, 3.

Dimensions.—Length of body 2.5, pedipalp 3.2 mm.

This species resembles *cornuta* in the shape of the ocular tubercle and *truncatidens* in the dentition. It is a very short stout form, with its dorso-ventral measurement (height), not much less than its antero-posterior measurement (length).

#### Key to species of Biacumontia.

1.	Ocular tubercle with a posterior process
	Ocular tubercle without a posterior process
2.	Posterior process of ocular tubercle spinelike, calcaneus of metatarsus II
	more than $\frac{1}{2}$ length of astragalus
	Posterior process of ocular tubercle rounded, calcaneus of metatarsus II
	$\frac{1}{3}$ length of astragalus
3.	Areas of dorsal scute with 2 rows of enlarged granules truncatidens.
	Areas of dorsal scute with a single row of enlarged granules 4.
4.	Ventral surface of pedipalp femur with 4 large simple teeth paucidens.
	Ventral surface of pedipalp femur with 7 large teeth, some of these bifid
	fissidens.

#### ROEWERANIA n. genus.

Dorsal scute unarmed and without grooves dividing it into areas; ocular tubercle low, without a terminal spine; stigmata clearly visible; pedipalp much elongated, especially in the  $\mathfrak{F}$ , where it is more than four times the length of the body; trochanter of pedipalp differing from all other Triaenonychinid genera in being extremely elongate (a little shorter than the length of the body in the  $\mathfrak{F}$ ); all segments of pedipalp armed with strong spines tipped with long setae, these spines often longer than the diameter of the segment on which they are placed; chelicerae elongate; legs long and slender, none of the femora armed ventrally with spines; calcaneus of metatarsi I and II much shorter than astragalus; median prong of claws of tarsi III and IV longer and stouter than the lateral prongs; tarsal segments I, 3; II, 8–10; III, 4; IV, 4.

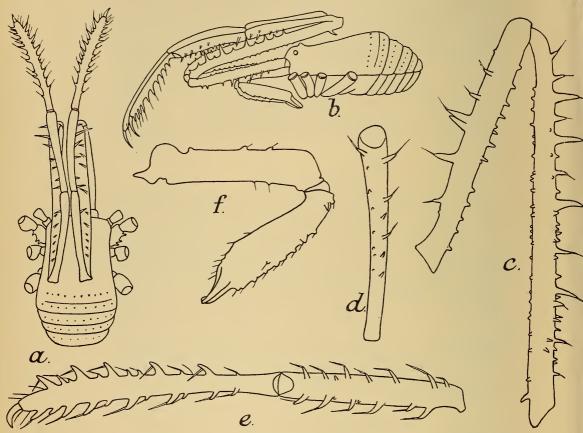
## Roewerania lignicola n. sp.

## (Text-fig. 14.)

Types, 8 33, 10 ♀♀, Hogsback, Amatola Mts.

3. Colour.-Body and appendages uniformly yellow.

Dorsal Surface.—Anterior margin of carapace with a small granule about half-way between the ocular tubercle and the antero-lateral angle of the carapace; ocular tubercle as in fig. 14, b, seen from the side; dorsal scute practically smooth, area V and free tergites with a transverse row of minute hardly distinguishable seta-tipped granules (fig. 14, a). Ventral Surface.—Surfaces of coxae not shiny but finely shagreened, sparsely covered with minute seta-tipped granules, coxa I with 4 larger granules along its anterior margin, 1 basal, 1 in the middle, the remaining 2 situated close together near the distal apex; genital



**TEXT-FIG.** 14.—Roewerania lignicola.  $\mathcal{J}: a$ , body from above; b, body from the side; c, trochanter and femur of pedipalp; d, patella of pedipalp; e, tibia and tarsus of pedipalp; f, chelicera.

operculum shagreened, about as long as broad; sternites shagreened, with 2 rows of minute granules.

Pedipalp as in fig. 14, b, seen from the side; trochanter and femur spined as in fig. 14, c, seen from the side; patella spined as in fig. 14, d, seen from below; tibia spined as in fig. 14, e, seen from below; tarsus spined as in fig. 14, e, seen from below.

Chelicera not armed with spines as in the pedipalp, the anterior

surface of segment II with a row of distinct granules (fig. 14, f). Legs as in generic description. Length of the whole palp more than 4 times the body length (in one specimen  $4\frac{1}{2}$  times as long); trochanter of pedipalp in some specimens but little shorter than the body length.

Dimensions.—Length of body 2.3, pedipalp 10 mm.; in a larger specimen the same dimensions are respectively 2.6 and 11.8 mm.

Q. A number of specimens have very much shorter pedipalps (about twice the body length); these I take to be females. Unfortunately in none of the specimens does the penis or ovipositor protrude from beneath the genital operculum; in these female specimens the genital operculum is broader than long, but other than in this character and the length of the pedipalp they do not seem to differ from the males.

Dimensions.-Length of body 2.6, pedipalp 5.5 mm.

This interesting species was found living under damp, rotting logs. The pedipalps in the living specimens were always carried folded back over the dorsal scute between the legs, as shown in fig. 14, a, b.

SUBFAM. Adaeinae Pocock.

Genus ADAEULUM Roewer.

Adaeulum brevidentatum n. sp.

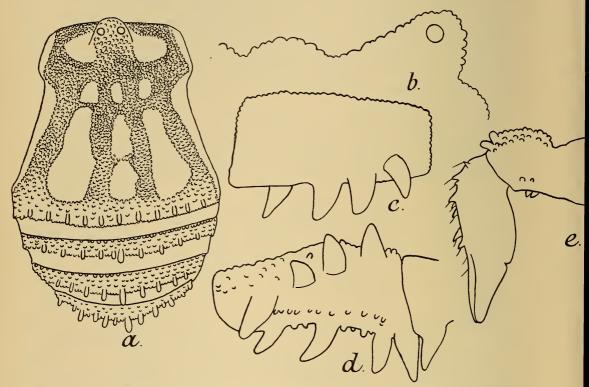
(Text-fig. 15.)

Types, 2 33, 1  $\mathcal{Q}$ , Hogsback, Amatola Mts. Collected by Dr. S. Manton.

3. Colour.—Body and appendages blackish-brown with a greenish tinge.

Dorsal Surface.—Anterior margin of carapace with a few enlarged granules in the middle; ocular tubercle low and rounded as in fig. 15, b, seen from the side; granulation of dorsal surface as in fig. 15, a, the smooth areas between the strips of granules shiny; each of the areas with a pair of low granular tumuli, but as these are connected by two longitudinal strips of granules in the middle line, they are hardly distinguishable individually; area V and free tergites with a transverse row of cylindrical, apically swollen granules.

Ventral Surface.—Surfaces of coxae evenly and densely covered with minute granules, anterior margin of coxa I with larger conical granules; genital operculum with some conical granules along its anterior edge; sternites in their anterior half with a strip of minute granules. Pedipalp.—Trochanter as in fig. 15, d, seen from the inner side, with 2 teeth on its ventral surface, the inner one the larger of the two (not seen in this figure); femur seen from above (fig. 15, c), with 3 short stout triangular teeth on the proximal three-fifths of its inner surface, a larger tooth near the inner apex of its ventral surface directed downwards and slightly inwards; femur seen from the



TEXT-FIG. 15.—Adaeulum brevidentatum.  $\mathcal{J}$ : a, body from above; b, ocular tubercle from the side; c, pedipalp femur from above; d, pedipalp femur from inner side; e, chelicera.

inner side (fig. 15, d), with 4 stout teeth on its outer ventral side, these teeth of more or less uniform size, not long but broad and strong; tibia with some scattered large shiny granules on its ventral surface, patella and tarsus without such granules; none of these segments with teeth or enlarged granules except for the usual 3 triangular teeth on each side of the tarsus.

Chelicera as in fig. 15, e, seen from the outer side, segment I without teeth at its dorsal distal apex, instead with 2 enlarged granules;

segment II with some sharp teeth along the inner side of its anterior surface.

Legs with femora wholly unarmed, tarsal segments I, 4; II, 11-12; III, 4; IV, 4.

Dimensions.-Length of body 6, breadth 4, pedipalp 4 mm.

Q. Colour and granulation of the body as in  $\mathcal{J}$ ; pedipalp femur with 4 short teeth on its inner surface; its ventral surface with 2 teeth at its inner apex, 3 teeth along the outer side, the 2 largest situated close to each other at the base, the third considerably more distally; patella below with 2 teeth on its inner side; tibia with 2 enlarged granules on its inner side, 1 at the outer apex; tarsus with 3 teeth on each side smaller than those of the  $\mathcal{J}$ . Chelicera as in the  $\mathcal{J}$ . Femora of legs unarmed, tarsal segments I, 4; II, 11; III, 4; IV, 4.

Dimensions.-Length of body 5.4, breadth 3.5, pedipalp 3.1 mm.

The male of this species differs from those of the other known forms in the short pedipalps, which are armed with unusually short but strong teeth.

# Genus LARIFUGELLA Lawrence.

Larifugella longipalpis n. sp.

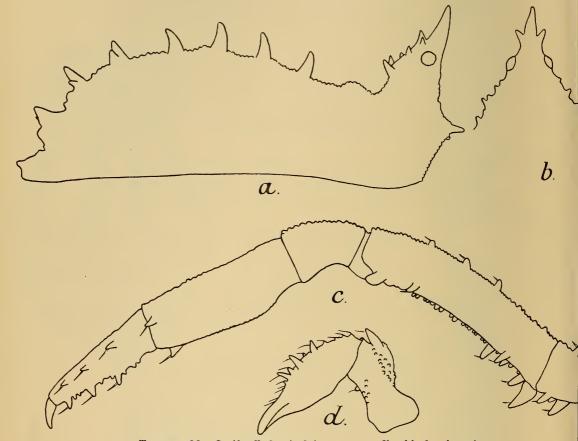
(Text-fig. 16.)

Type, 1 J, Van Staden's River, Port Elizabeth.

Colour.—Body blackish brown tinged with green, pedipalps and chelicerae a little lighter.

Dorsal Surface.—Anterior margin of carapace with 1 enlarged granule in the middle and 1 at each antero-lateral angle of the carapace; ocular tubercle as in fig. 16, *a*, seen from the side, fig. 16, *b*, seen from directly behind, with some large granules posteriorly and at the sides; dorsal scute uniformly covered with numerous minute granules but without transverse rows dividing it into areas; areas I-IV each with a pair of unusually large, pointed, tooth-like, and slightly recurved enlarged granules; area V with a transverse row of about 10 enlarged conical granules, those at the sides smaller, the interspaces of this row filled up with minute round granules, a strip behind this row smooth; free tergite I with a transverse row of about 10 large conical granules, a single row of minute granules anterior to this row, an irregular row of minute granules filling the interspaces of this row; free tergite II similarly with a row of about 15 enlarged conical granules varying somewhat in size, the anterior row of minute granules duplicated; free tergite III with the row of enlarged conical granules duplicated, an irregular strip of minute granules anterior to it.

Ventral Surface.--Surfaces of coxae sparsely covered with minute



TEXT-FIG. 16.—Larifugella longipalpis.  $\vec{\sigma}$ : a, profile of body; b, ocular tubercle from behind; c, pedipalp from inner side; d, chelicera.

granules, coxa I in its anterior half with some much larger conical granules, especially distally; sternum long and narrowly triangular; genital operculum with about 6 conical granules along its distal edge; sternites with an anterior row of minute granules, a posterior row of well-spaced, moderate, seta-tipped granules, the last sternite with less regular granulation.

Pedipalp remarkably long, tibia slightly swollen ventrally but not

so markedly as in *L. natalensis*; whole of the dorsal surface of pedipalp covered with minute granules, ventral surface of femur with a few scattered granules, those of the remaining segments quite smooth; femur dorsally with 3 enlarged granules; ventral surface of femur weakly armed, with only 1 basal tooth on the outer side, followed distally by some moderate teeth (fig. 16, c); inner surface of femur with 4-5 enlarged teeth in its proximal two-thirds (these not seen in fig. 16, c), and a large hooked apical tooth with a second smaller tooth proximal to it (seen in fig. 16, c); patella below without teeth; tibia below with 3 strong outer teeth (not seen in fig. 16, c), and 1 apical inner tooth; tarsus below with 3 triangular teeth on each side.

Chelicera as in fig. 16, d, seen from the inner side; segment I granular above, its distal edge with 2 conical teeth, the inner one considerably larger than the outer one; segment II along its inner anterior surface with a row of stout teeth varying in size.

Legs.—Femur I with 2-3 inconspicuous conical granules on its ventral surface; terminal section of tarsus II composed of 3 segments on the one side, of 4 on the other; tarsal segments I, 4; II, 17; III, 4; IV, 4.

Dimensions.-Length of body 8.1, breadth 6.4, pedipalp 11.6 mm.

This species is easily distinguishable from the two other species of the genus, L. afra and natalensis, by the great length of its pedipalps. It is also the largest Triaenonychid yet found in South Africa.

### Genus LARIFUGA Loman.

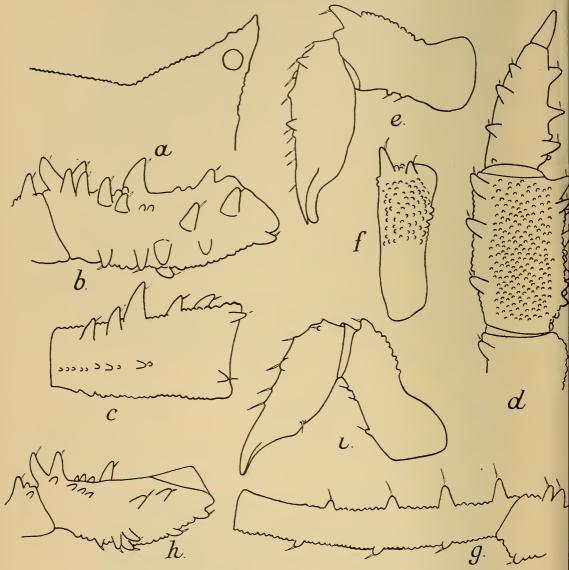
# Larifuga mantoni n. sp.

# (Text-fig. 17.)

Types, 1 ♂, 1 ♀, Hogsback, Amatola Mts., deposited in the Albany Museum, Grahamstown.

3. Colour.-Body blackish-brown, legs blackish-brown, pedipalps and chelicerae a little lighter.

Dorsal Surface.—Anterior margin of carapace with a row of 9–11 moderate blunt granules on each side of the ocular tubercle, those at the antero-lateral angles of the carapace a little larger and conical; ocular tubercle as in fig. 17, *a*, seen from the side; carapace just posterior to the ocular tubercle divided into a middle and two lateral areas by rows of minute round granules; dorsal scute divided into 4 smooth areas by regular transverse rows of minute round granules, these rows 2–3 granules deep, broken in the middle anteriorly but more or less continuous in the posterior areas; areas I–IV in the



**TEXT-FIG.** 17.—Larifuga mantoni.  $\vec{\sigma}$ : a, ocular tubercle; b, pedipalp femur from the side; c, pedipalp femur from above; d, patella, tibia, tarsus of pedipalp from below; e, chelicera from the side; f, segment I of chelicera from above; g, femur I.  $\mathfrak{Q}$ : h, pedipalp femur from the side; i, chelicera.

middle with a pair of larger conical granules surrounded by a cluster of minute granules; area V with a transverse row of 5 enlarged conical granules occupying the middle portion of the segment, the central granule placed just half-way between the two conical granules of the preceding area, behind this row a continuous row of minute granules duplicated at the sides; free tergites I–III with a transverse row of 8–10 large conical granules and two transverse rows of minute granules, the one anterior, the other posterior to the row of conical granules, the anterior row further from the row of conical granules than the posterior one.

Ventral Surface.—Surfaces of coxae II-IV regularly covered with minute granules, these a little less dense in the middle; coxa I with larger conical granules, 2-3 at the anterior distal margin of the segment enlarged; sternum fairly wide and regularly triangular; sternites with a transverse row of conical granules, an anterior but no posterior row of minute granules.

*Pedipalp.*—Femur seen from above as in fig. 17, c, seen from the inner side as in fig. 17, b, the teeth stout and triangular; patella below with 2 small teeth near its outer apex; tibia and tarsus as in fig. 17, d, seen from below, the ventral surface of tarsus smooth.

Chelicera.—Segment I seen from above as in fig. 17, f, its distal edge with 2-3 teeth, the inner one largest, the outer smallest; inner surface of segment (fig. 17, e) shagreened; segment II with some large blunt teeth along its inner anterior surface.

Legs.—Femur I with ventral surface armed as in fig. 17, g, remaining legs unarmed; terminal section of tarsus II consisting of 3 segments; tarsal segments I, 3; II, 14–16; III, 4; IV, 4.

Dimensions.-Length of body 6, breadth 4, pedipalp 4.8 mm.

 $\varphi$ . Colour as in  $\mathcal{J}$ ; granulation as in  $\mathcal{J}$ , except that the granules of the tergites and sternites are more clearly defined; surfaces of coxae more densely granular than in the  $\mathcal{J}$ .

Pedipalp.—Femur as in fig. 17, h, seen from the inner side, the enlarged teeth less conspicuous than in the 3; patella below with 2 conspicuous teeth on its inner side, 1 at its outer distal apex; tibia without granules on its ventral surface, with 3 stout triangular teeth on each side; tarsus with 3 stout triangular teeth on each side, stronger than those of the 3.

Chelicera as in fig. 17, *i*, seen from the inner side; segment I with 2 teeth on its dorsal distal edge, the inner one the larger but considerably smaller than that of the  $\sigma$ ; segment II with rounded teeth

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on its anterior inner surface, more rounded and less conspicuous than those of the  $\Im$ .

Legs.—Femur I armed on its ventral surface as in the 3; tarsal segments I, 4; II, 14–15; III, 4; IV, 4.

Dimensions.—Length of body 5.8, breadth 4.1, pedipalp 3.7 mm.

Although this species agrees with Larifugella in the shape of the sternum and number of tarsal segments, it might equally well be placed in the genus Larifuga, on account of the division of the dorsal scute into quadrate areas by transverse rows of granules; this occurs in two species of Larifuga, weberi and calcarata. It also agrees with Larifuga in having the femur of leg I armed. For the present, therefore, I have placed it under Larifuga until its generic position can be definitely determined.

# SUBORDER PALPATORES.

# FAM. ACROPSOPILIONIDAE Roewer.

### Genus CADELLA Hirst.

1925. Cadella, Hirst, P.Z.S., 1925, pt. ii, p. 1276, fig. 5, A, B, C.

1931. Syn. Oonopsopilio, Lawrence, Ann. S.A. Mus., vol. xxix, p. 470, fig. 66, a-e.

The genus *Oonopsopilio* described by me in 1931 is unquestionably synonymous with Hirst's genus *Cadella*, the description of which was unaccountably overlooked in drawing up the monograph of South African Opiliones. The species on which Hirst based his genus, however, remains separated from *Cadella (Oonopsopilio) africana* as set out in the key below.

#### Cadella spatulipilis n. sp.

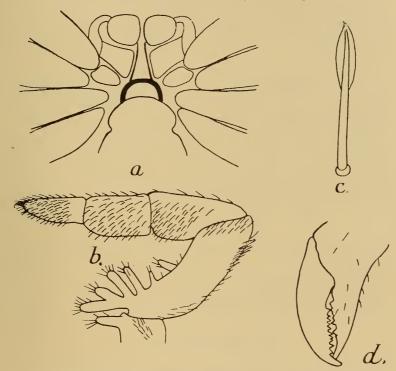
#### (Text-fig. 18.)

Types, 2 specimens, Jonkershoek, Stellenbosch.

Colour.—Anterior margin of carapace orange with some black markings; ocular tubercle posterior and mesially to the eye, black; below the ocular tubercle at the sides a silver white stripe separating the blackened portion of the tubercle from the edge of the carapace; dorsal surface of ocular tubercle between the eyes mottled reddishbrown; dorsum of body behind the ocular tubercle reddish-brown, mottled with silvery streaks and spots; ventral surface much lighter than dorsal surface, coxae white, darkened in their distal third,

sternites white with blackish symmetrical stripes. Legs brown, femora with a narrow white band in distal half, tibiae with narrow basal, middle, and apical white bands, the middle band more distinct than the others.

Ventral Surface.---Ventral surface of body in the region of the coxae



TEXT-FIG. 18.—*Cadella spatulipilis. a*, mouthparts and coxae; *b*, pedipalp; *c*, spatulate hair of pedipalp enlarged; *d*, claws of chelicera.

and mouthparts as in fig. 18, a; stigmata clearly visible, close to the posterior distal margin of coxa IV.

Pedipalp as in fig. 18, b, seen from the inner side. It differs from the appendages of *africana* and *capensis* in having modified hairs provided with a membranous fin-like expansion at their apices (fig. 18, c); these hairs occur over the whole surface of the various segments except for a patch at the sides of the trochanter and another at the dorsal distal apex of the femur, where the hairs are normal and pointed; a row consisting of a few hairs on the dorsal surface of the patella are also normal, being, however, stronger and more spinelike than the other unmodified hairs; tarsus with a distinct though short claw.

Chelicera with the movable and immovable claws toothed as in fig. 18, d.

Legs.—Tarsal segments I, 15; II, 20; III, 15; IV, 17.

Dimensions.—Length of body 3.5 mm.

The specimens from Caledon cited in Ann. S.A. Mus., vol. xxix, p. 472, appear to be a variety of this species which I now name var. caledonica.

Colour.—The specimens have become much faded in alcohol but are apparently light brown above with a broad median longitudinal band constricted in the middle and with crenulated lateral borders; ventral surface light with brownish markings.

*Pedipalp.*—The basal ventral papilla bifurcate only at the apex; spatulate hairs on the various segments mixed with normal pointed ones, the two basal papillae with spatulate hairs, inferior surface of tibia and tarsus with mixed spatulate and pointed hairs, remaining hairs of the appendage simple and pointed.

### Key to species of Cadella.

1. Pedipalp with spatulate hairs, pedipalp femur ventrally	with	5 papillae, the
basal one bifurcate		spatuli pilis.
Pedipalp without spatulate hairs, pedipalp femur ventral	lly w	vith 4 papillae,
the basal one bifurcate		2.
2. Papillae of pedipalp femur very long and apically pointed		. capensis.
Papillae of pedipalp femur shorter and apically rounded		. africana.

### FAM. PHALANGIIDAE Simon.

### SUBFAM. Phalangiinae Simon.

Genus RHAMPSINITUS Simon.

Rhampsinitus ceratops n. sp.

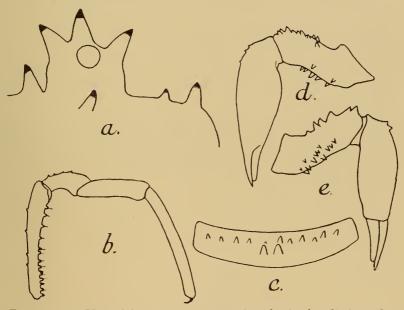
#### (Text-fig. 19.)

Types, 2 33, 7  $\Im$ , Hogsback, Amatola Mts. The 33 are perhaps not fully mature.

3. Colour.—Dorsal surface of body brown, with a longitudinal median lighter stripe widening posteriorly and including the ocular tubercle anteriorly; proximal half of coxae white, distal half brown with light spots, genital operculum and sternites white with brown stripes and spots; legs brown, tibiae with some lighter bands.

#### New South African Opiliones.

Dorsal Surface.—Anterior margin of carapace in the middle with 2 toothlike spines, these larger than the other spines of the carapace, of which there are 5 or 6 on each side, including 1 laterally at the base of the ocular tubercle; ocular tubercle spined as in fig. 19, a, seen from the side; thoracic and abdominal tergites (fig. 19, c), each with a single transverse row of spines, these weaker at the sides but duplicated in the middle line, where there are usually 2 enlarged spines just anterior to the regular row, these enlarged



**TEXT-FIG. 19.**—*Rhampsinitus ceratops.*  $\mathcal{J}: a$ , ocular tubercle; *b*, pedipalp; *c*, first abdominal tergite; *d*, chelicera from inner side; *e*, chelicera from outer side.

spines a little smaller than those on the ocular tubercle but larger than any of the other spines on the dorsum; thoracic tergites with 2 of these enlarged spines, abdominal tergites I and II with 2, III-V with only 1, the remaining tergites without enlarged spines in the middle.

Ventral Surface.—Coxae smooth, except I, which is provided with a few very weak granules; genital operculum and sternites quite smooth.

Pedipalp armed as in fig. 19, b.

Chelicera armed as in fig. 19, e, seen from the outer side, fig. 19, d, seen from the inner side.

Legs.—Femur I slightly incrassate, not armed with accessory teeth at its apex, with longitudinal rows of fairly strong spines along the edges which are, however, not sharply angled; remaining segments of leg I smooth; femora of legs II–IV spined, but more weakly so than in leg I; tarsal segments I, 40; II, 76; III, 37; IV, 34.

Dimensions.—Length of body 5.3, chelicera I + II = 1.5 + 2.7, pedipalp 5.5 mm.

 $\mathfrak{P}$ . Dorsal surface with a constricted grey-brown marking, divided in the middle by a very distinct, narrow, white, longitudinal stripe, widening on the last 3 or 4 tergites. Ocular tubercle with much smaller spines than in the  $\mathfrak{F}$ ; anterior margin of carapace with much smaller spines than in the  $\mathfrak{F}$ ; transverse rows of spines on the thoracic and abdominal tergites much weaker than in the  $\mathfrak{F}$ , even the enlarged spines in the middle line inconspicuous, though certainly larger than the remaining ones; the whole of ventral surface, including coxa I, smooth. Pedipalp armed as in  $\mathfrak{F}$ . Chelicera smooth except for a few granules on the distal dorsal surface of segment I. Legs with much weaker spines than in  $\mathfrak{F}$ ; femur I armed with spines which are not stronger but rather weaker than those of legs II-IV; tarsal segments I, 40; II, 77; III, 37; IV, 42.

Dimensions.—Length of body 7.3, chelicera I + XI = 1 + 2, pedipalp 3.7 mm.

The types, collected by Mr. J. Hewitt, are deposited in the Albany Museum, Grahamstown.